WQ STANDARDS 3 ESSENTIAL COMPONENTS

- DESIGNATED USES (DU)
 - Goal uses: "what do we (society) want to use the waters of the state for?" OR "What valuable things do we want waters to do?
- CRITERIA TO SUPPORT THE USES
 - What are the measurable attributes of waters related to each DU, and what is the minimum acceptable value?
- ANTIDEGRADATION

New Hampshire Statutes

CHAPTER 485-A: WATER POLLUTION AND WASTE DISPOSAL Section 485-A:1 Declaration of Purpose.

Section 485-A:2 Definitions.

Section 485-A:8 Standards for Classification of Surface Waters of the State.

Section 485-A:9 Classification Procedure.

Section 485-A:10 Reclassification Procedure.

Section 485-A:11 Public Waters Classified.

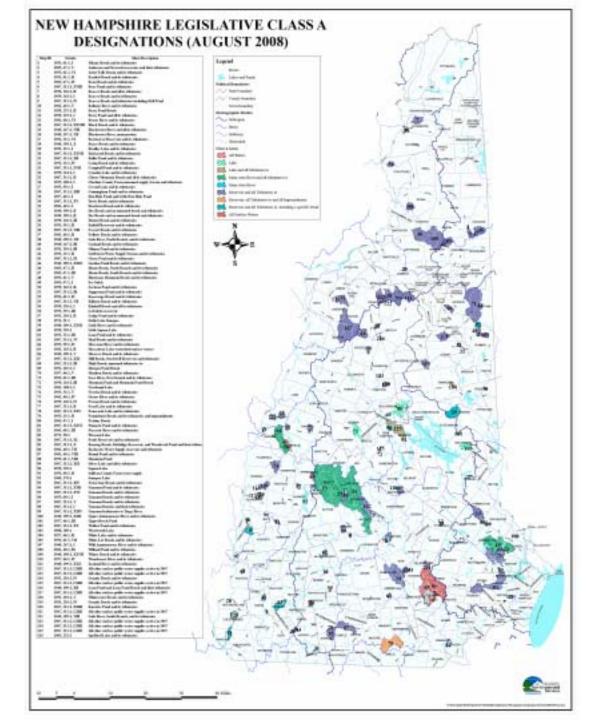
Section 485-A:12 Enforcement of Classification.

NEW HAMPSHIRE CODE OF ADMINISTRATIVE RULES

CHAPTER Env-Wq 1700 SURFACE WATER QUALITY REGULATIONS

- 485-A:8 Standards for Classification of Surface Waters of the State. It shall be the overall goal that all surface waters attain and maintain specified standards of water quality to achieve the purposes of the legislative classification. For purposes of classification there shall be 2 classes or grades of surface waters as follows:
- I. Class A waters shall be of the highest quality and shall contain not more than either a geometric mean based on at least 3 samples obtained over a 60-day period of 47 Escherichia coli per 100 milliliters, or greater than 153 Escherichia coli per 100 milliliters in any one sample; and for designated beach areas shall contain not more than a geometric mean based on at least 3 samples obtained over a 60-day period of 47 Escherichia coli per 100 milliliters, or 88 Escherichia coli per 100 milliliters in any one sample; unless naturally occurring. There shall be no discharge of any sewage or wastes into waters of this classification. The waters of this classification shall be considered as being potentially acceptable for water supply uses after adequate treatment.

II. Class B waters shall be of the second highest quality and shall have no objectionable physical characteristics, shall contain a dissolved oxygen content of at least 75 percent of saturation, and shall contain not more than either a geometric mean based on at least 3 samples obtained over a 60-day period of 126 Escherichia coli per 100 milliliters, or greater than 406 Escherichia coli per 100 milliliters in any one sample; and for designated beach areas shall contain not more than a geometric mean based on at least 3 samples obtained over a 60-day period of 47 Escherichia coli per 100 milliliters, or 88 Escherichia coli per 100 milliliters in any one sample; unless naturally occurring. There shall be no disposal of sewage or waste into said waters except those which have received adequate treatment to prevent the lowering of the biological, physical, chemical or bacteriological characteristics below those given above, nor shall such disposal of sewage or waste be inimical to aquatic life or to the maintenance of aquatic life in said receiving waters. The pH range for said waters shall be 6.5 to 8.0 except when due to natural causes. Any stream temperature increase associated with the discharge of treated sewage, waste or cooling water, water diversions, or releases shall not be such as to appreciably interfere with the uses assigned to this class. The waters of this classification shall be considered as being acceptable for fishing, swimming and other recreational purposes and, after adequate treatment, for use as water supplies. Where it is demonstrated to the satisfaction of the department that the class B criteria cannot reasonably be met in certain surface waters at all times as a result of combined sewer overflow events, temporary partial use areas shall be established by rules adopted under RSA 485-A:6, XI-c, which meet, as a minimum, the standards specified in paragraph III.

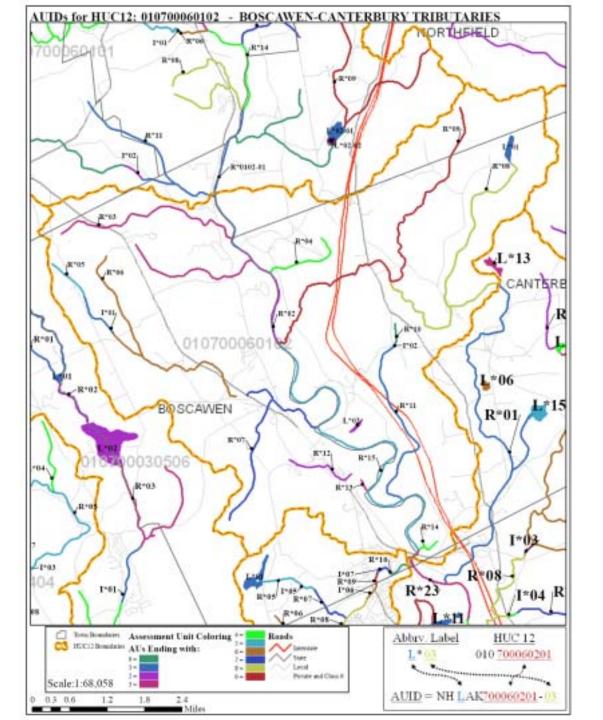


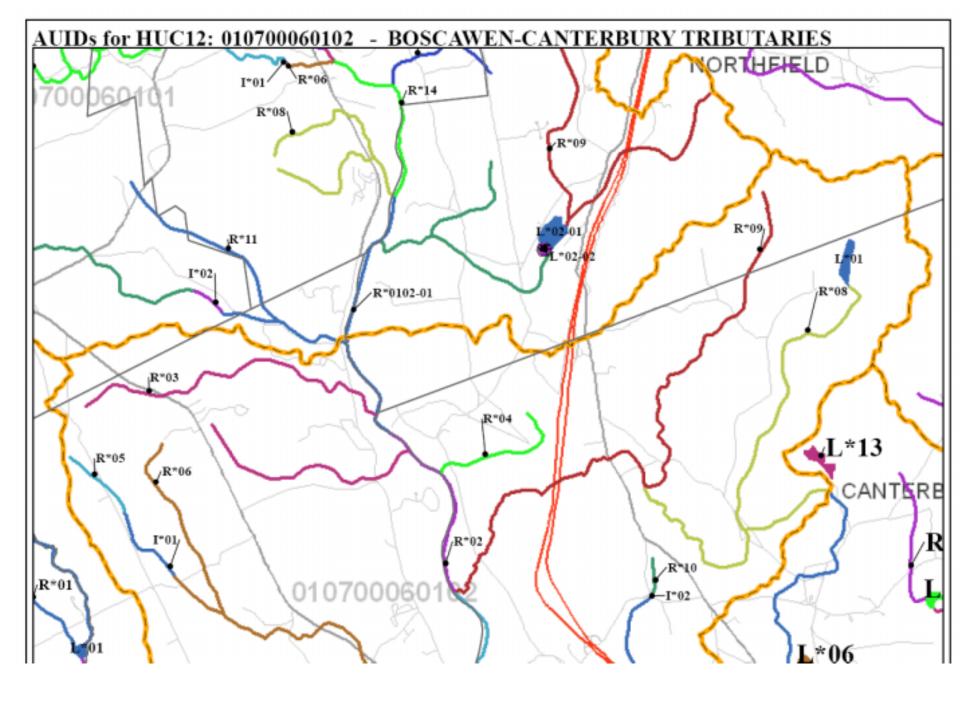
STATE OF NEW HAMPSHIRE

2010 Section 305(b) and 303(d) Consolidated Assessment and Listing Methodology

February, 2010







WATERSHED 305(b) ASSESSMENT SUMMARY REPORT:

HUC 12 010700060102

HUC 12 NAME BOSCAWEN-CANTERBURY TRIBUTARIES

(Locator map on next page only applies to this HUC12)

Assessment Cycle 2008

Good	Pail Support Good
Marginal	Full Support Marginal
Likely Good	Insufficient Information - Potentially Full Support
No Duta	No Data
Likely Bad	Insufficient Information - Potentially Not Support
Poer	Not Support Marginal









			-			0 00	
ASSESSMENT UNIT ID LA		ASSESSMENT UNIT NAME	AQUATIC LIFE	SWIMMING	BOATING	PISH CONSUMP.	
MHIMP700060102-01	I*01	TANNERY BROOK	3-30	3-110	3-30)		
MHIMP709060102-02	1+01	COLD BROOK	3-100	3-ND	3-3/21		
BHLAK700060102-01	L*01	FOREST FOND	3-300	3-10	3-300	10.00	
MHLAM700060102-02	L*02	THE CHANNEL	3+307	2-9(2)	3-100	100.00	
MHRIV700060102-01	R*0102-01	MERRIMACK RIVER	3-700	3-80	3-900	100-100	
MHRIV700060102-02	R*02	MERRIMACE RIVER	3-310	3-310	3-377		
NHMIV700060102-03	R+03	GLINES BROOK	3-305	3=MD	3-80		
EMRIV700060102-04	R*04	CHRAMED BROOK - TO MERRINGER RIVER	3-80	3-100	3-80	-	
MHRIV700060101-05	R+05	TAMMERY BROOK	3+300	3-MD	3-300	-	
MHRIV700060102-06	R*06	TANNERY BROOK	3-10	3-100	3-100	10.00	
MHRIV700060102-07	R*07	TANNERY BROOK - COLD BROOK	1-11	2.0	3.400		
MHRIV700060102-08	R*08	FOREST POND BROOK - UNNAMED BROOKS THRU BIG MEADOW MARSH	3-300	3-100	2-10)		
MHRIV700060102-09	R*05	BRYANT BROOK	3+\$903	3-100	3-305		
MHBIV700060102-10	R*10	COLD BROOK	3-30	3-80	3-370		
MHRIV700060102-11	R*11	COLD BROOK	3+307	3-80	7-10	-	
MHRIV700060102-12	R*12	UNNAMED BROOK - TO UNNAMED POND	3-700	3-100	3-80	10 -	
MHBIV700060102-13	R*13	UNNAMED BROOK - FROM UNNAMED POND TO MERRIMACK RIVER	3-207	3-MD	3-80		
NHRIV700060102-14	R*14	UNNAMED BROOKS - FROM UNNAMED POWDS TO MERRIMACK RIVER	3-30	3-100	3-370		
мижIV700060102-15	R*15	MERRIMACE RIVER	3-945	2-11	2-11-	-10.00	
MHRIV700060302-23	R+23	MERRIMACK RIVER	3-80	2-8		100.00	

Assessment Unit ID

NHRIV700060102-15

Assessment Unit Name

MERRIMACK RIVER

Primary Town

CANTERBURY

Size

Beach N

6.9200

MILES

2008, 305(b)/303(d) - All Reviewed Parameters by Assessment Unit

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Date: 2/6/09

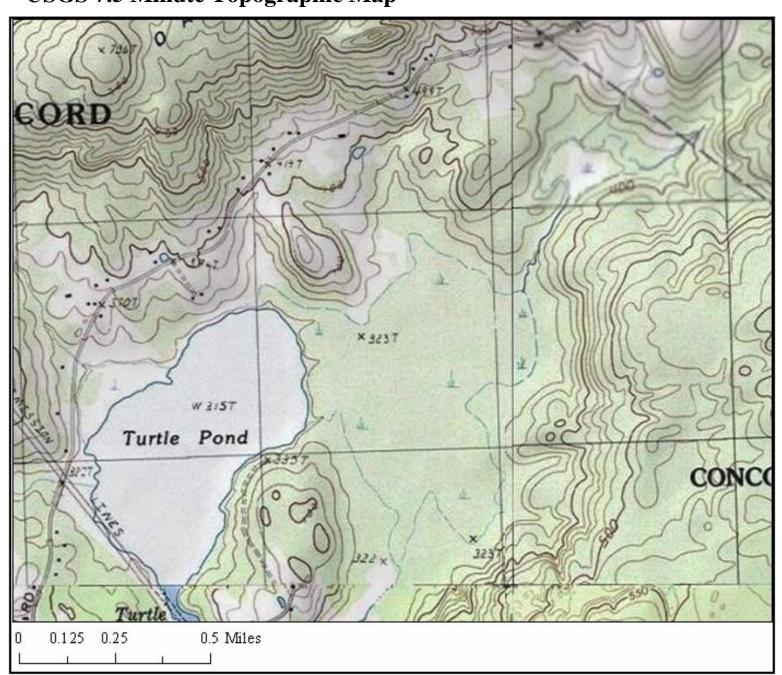
Assessment Unit Category*- 3-PAS

Designated Use Description	*Desig. Desig. Use Use Category Threat		Parameter Name	Parameter Threatened (Y/N)	Parameter Category*	TMDL Schedule	Expected To Attain Date		
Aquatic Life	3-PAS		Ammonia (Unionized)	N	3-PAS		Ter V		
			Benthic-Macroinvertebrate Bioassessments (Streams)	H	3-ND				
			Dissolved oxygen saturation	31	3-ND				
			Fishes Bicassessments (Streams)	29	3-ND				
			Oxygen, Dissolved	N	3-ND				
			pH	N	3~ND				
rinking Water After dequate Treatment	2+6								
ish Consumption	48-8		Mercury	N	48-M	2017		Atmospheric Deposition - Toxics	
rimary Contact Secreation	2-M		ESCHERICHIA COLI	N	2+M				
econdary Contact ecreation	2-M		ESCHERICHIA COLI	н	2-M				
Mildlife	3-ND			7			7		

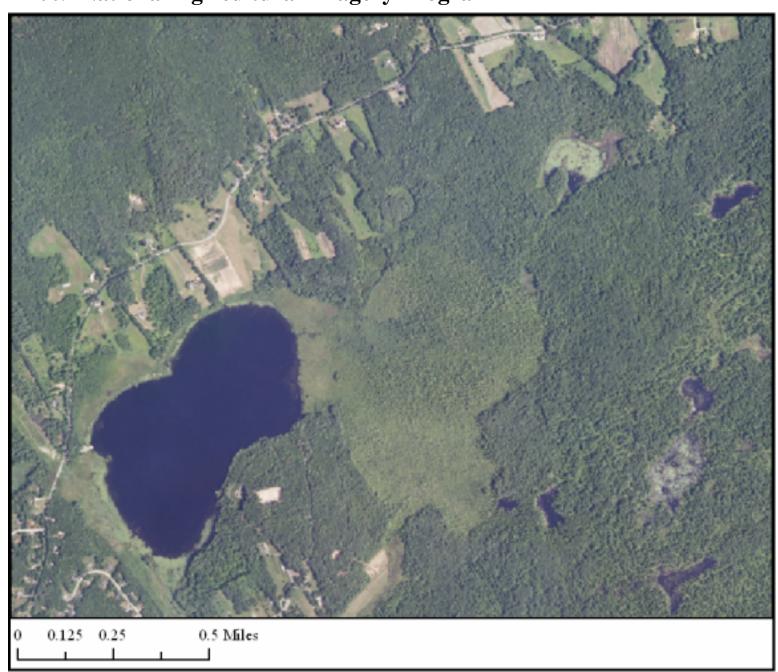
Severe	Poor	Likely Bad	No Data	Likely Good	Marginal	Good
Not Supporting, Severe	Not Supporting, Marginal	Insufficient Information – Potentially Not Supporting	No Data	Insufficient Information – Potentially Full Supporting	Full Support, Marginal	Full Support, Good

*DES Categories; 2-G = Supports Parameter well above criteria, 2-M = Supports Parameter marginally above criteria, 2-OBS = Exceeds WQ criteria but natural therefore not a WQ exceedence, 3-ND = Insufficient Information/No data, 3-PAS= Insufficient
Information/Potentially Attaining Standard, 3-PNS= Insufficient Information/Potentially Not Attaining Standard, (4A=Impaired/TMDL
Completed, 4B=Impaired/Other Measure with rectify Impairment, 4C=Impaired/Non-Pollutant, 5=Impaired/TMDL needed) M=Marginally
Impairment, P=Severe Impairment, T=Threatened (http://des.nh.gov/organization/divisions/water/wmb/swga/index.htm)

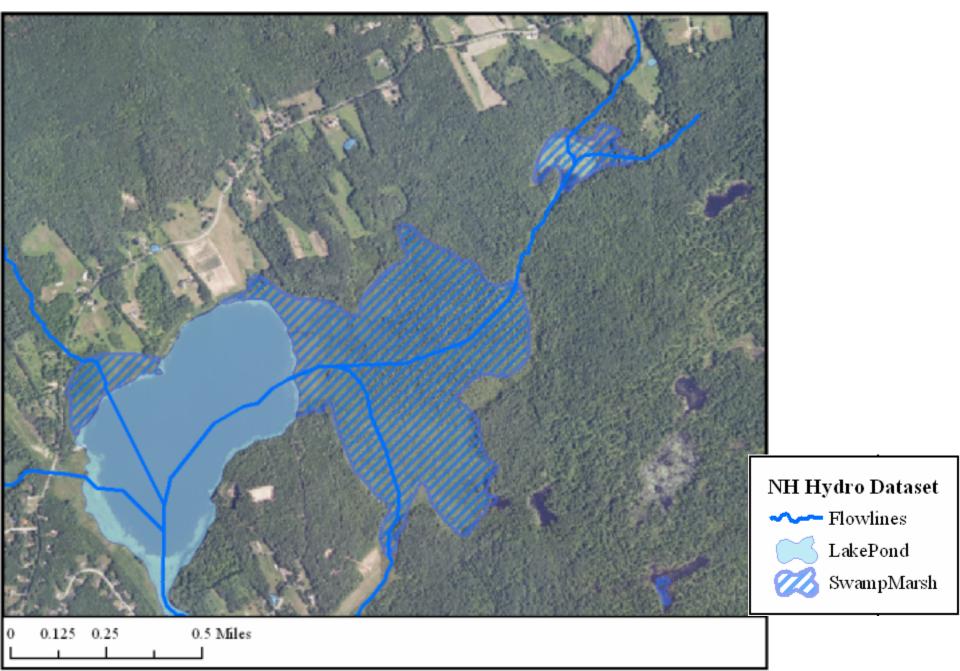
USGS 7.5 Minute Topographic Map



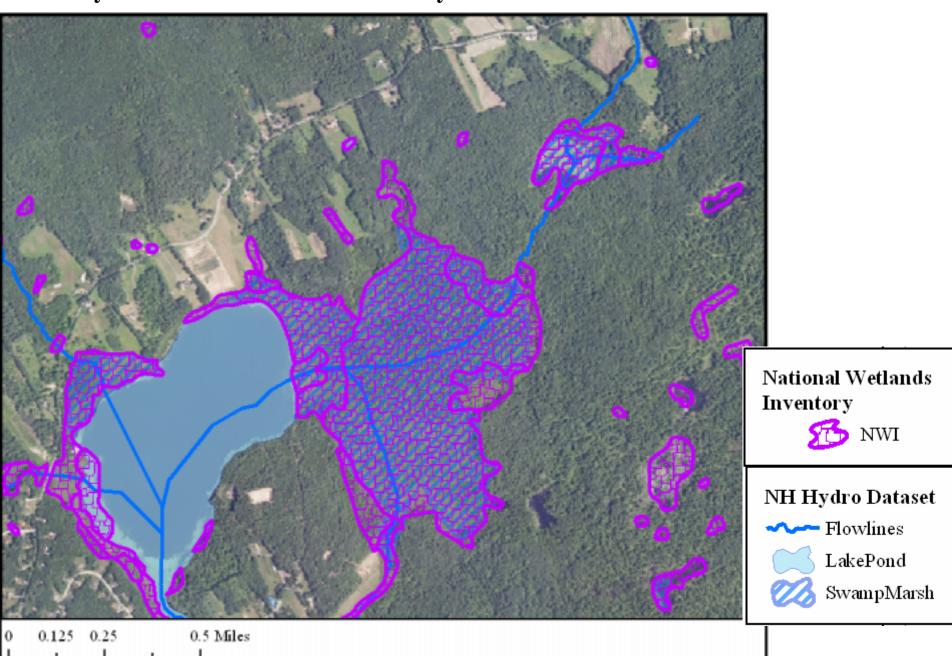
2009 National Agricultural Imagery Program



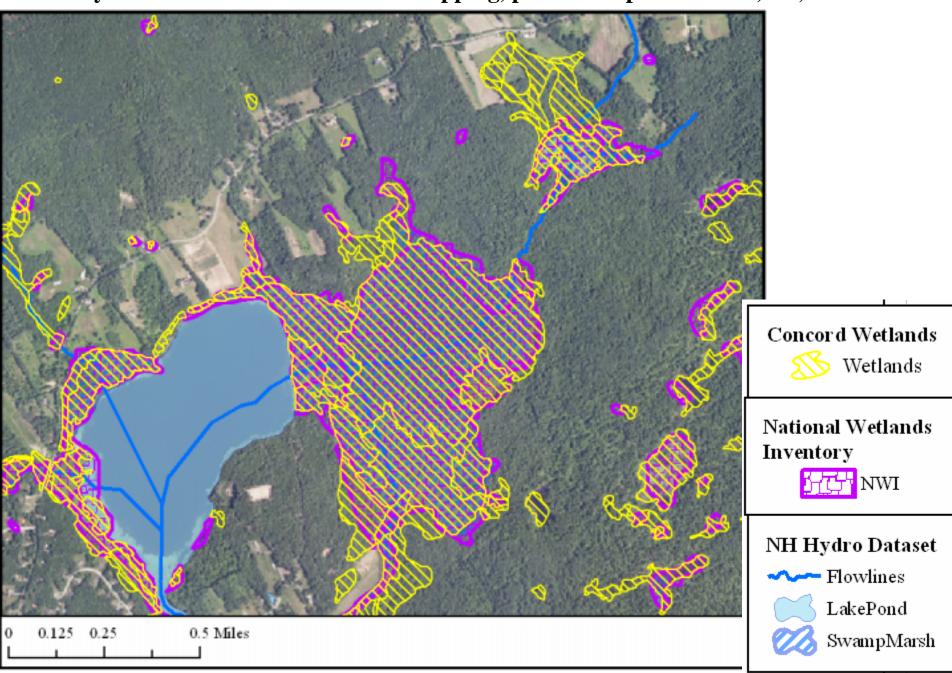
Overlay the 1:24,000 New Hampshire Hydrography Dataset

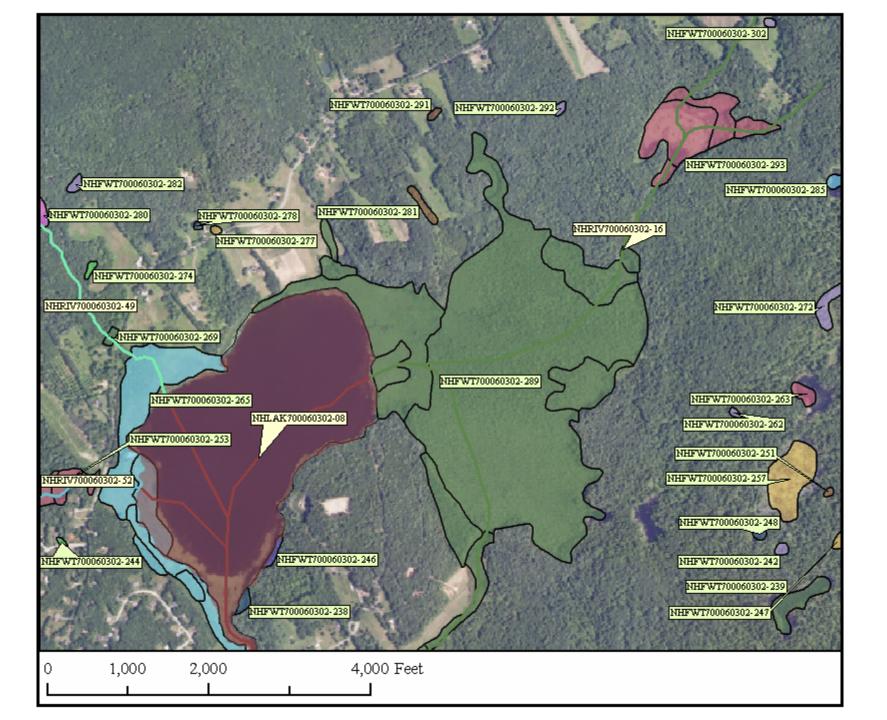


Overlay the National Wetlands Inventory



Overlay Concord's detailed wetlands mapping, photo interpreted at 1:7,200, field verified.





NEW HAMPSHIRE WATER QUALITY STANDARDS: CURRENT WATERBODY TYPES, DESIGNATED USES, AND CORE INDICATORS														
WATERBODY TYPE:		LAKE RIV		RIVER IMPOUNDMENT RIVERINE WETLAND ² IMPOUNDMENT				ESTUARY	OCEAN					
\vdash	Eutrophic	Mesotrophic	Oligotrophic	Large	Wad	deable	Eutrophic	Mesotrophic	Oligotrophic		Fresh Water	Tidal	<u>'</u>	
WATERBODY SUB TYPE:					Warm Water Fishery	Cold Water Fishery								
CURRENT DESIGNATED USES				Û			CURRENT	CORE PARAI	METERS			Û		
Aquatic Life [*]	pH ³ , DO, Chla ⁴	pH ³ , DO, Chla ⁴	pH³, DO, Chla⁴	pH ³ , DO	pH ³ , DO benthic IBI	pH ³ , DO benthic IBI fish IBI	pH ³ , DO, Chla ⁴	pH ³ , DO, Chla ⁴	pH ³ , DO, Chla ⁴	pH ³ , DO, Chla ⁴	as naturall	lly occurs	pH ³ , DO,Chl <i>a,</i> [N]	pH ³ , DO,
Wildlife	í							ria not develop						
Primary Contact Rec.		e. coli b	acteria: Clas	s A geo mr	ean 47; Class	s B - geo mea	n 126; Desir	gnated Beach	(either class)	geo mean 47		enter	rococcus geo me	iean 35
Secondary Contact Rec.	1						5.	x Pri. Contact						
Public Water Supply ¹	1		No Criter	ia: Treatm	ent technolo	gies exist to p	roduce safe	drinking water	r from any rav	w water source			N/A	N/A
Fish Consumption	í <u> </u>						numr	eric toxics crite	eria					
Shellfish Consumption	<u> </u>	N/A								fecal coli. Red tide	fecal coli. Red tide			
	<u></u> '	<u> </u>	<u> </u>	<u> </u>	 '	<u> </u>	 '	<u> </u>	<u> </u>	 '	 '		<u> </u>	
		<u> </u>	<u> </u>	<u> </u> '	 	<u> </u>	!	 '	 '	 	 '		<u> </u> '	1
*Nlumaria tavias aritaria for agu	ia lifa annh	L wotorby		thoro roro	li i i a any date		<u></u> '		<u></u> '		<u> </u>			
*Numeric toxics criteria for aqua	atic life apply	to all waterboy	dy types, but	there raren	y is any data	·								
'after adequate treatment														

² to be divided into subtypes in the future based on Cowardin classification system

there are different Chla criteria for each trophic type with [P] as an indicator

³ by statute, 6.5<pH<8.0 for all waterbody types

	ONE IDEA FOR A MATRIX OF DESIGNATED USES AND SUBCLASSES										
	UN	IC IDEA F	OR A WATRIX OF	DESIGNATED	09E9 AND 90	JDCLA33E3					
AQUATIC LIFE	SWIMMING	BOATING	DRINKING WATER SUPPLY	FISH CONSUMPTION	SHELLFISH CONSUMPTION	WILDLIFE	GEOMORPHIC INTEGRITY				
Natural	Frequent	Frequent	Source Water	Fishing possible	Shellfishing possible	Natural	Natural				
Rural	Occasional	Occasional	Potential Source Water	Not Fish Habitat	Not Shellfish Habitat	Rural	Managed				
Community	Rare	Rare	No Water Supply Potential			Community					
Urban						Urban					